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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,086	06/27/2003	Zhicheng Li	44662B (1062-014C1)	7520
25215	7590	05/25/2006	EXAMINER	
DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48326			FULLER, ERIC B	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/609,086

Applicant(s)

LI ET AL.

Examiner

Eric B. Fuller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15, 17-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-30 and 32-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

With respect to claim 1, applicant argues that the benefits of Wade are only realized by the use of aspartic acid in combination with organic acids and alleges that one of ordinary skill in the art would not know that aspartic acid would impart the same characteristic in the composition of Locke. This is not found convincing. The claims are open to comprise the constituents, thus including organic acid into the composition still reads on the applicant's claims. Wade teaches additives, which include aspartic acid and organic acids, that result in a weather and abrasion resistant coating in an amine based composition. The composition of Locke is amine based. Therefore, one would have a reasonable expectation that using the additives taught by Wade in the composition taught by Locke would result in the same benefits taught by Wade.

As to claim 2, applicant argues that there would be no knowledge that the potassium salts in Cannady would impart the same benefit of reducing static build-up in Locke. This is not found convincing. The benefit is an inherent property of the potassium salt. The salt in an electrolyte, which by definition increases the conductivity of the medium it is dissolved in. Since it increases the conductivity of the medium, it reduces the static build-up.

As to claim 3, applicant argues that the references fail to teach robotically spraying the composition. Applicant additionally alleges that Burton teaches that the process does not require specialized equipment and thus teaches away from robotics.

This is not found convincing. First, Burton is only relied upon for teaching the substrate may be a vehicle bed liner. The spraying process in Burton is inconsequential to the rejection, as Locke is the primary reference that teaches that spraying process.

Secondly, Burton teaching that specialized equipment is not required is not a teaching that the process would not benefit from it, thus it does not teach away from the limitation of robotics. To automate manual activity is obvious. *In re Venner* 120 USPQ 192 (CCPA 1958); *In re Rundell* 9 USPQ 220 (CCPA 1931). It is additionally noted that using robotics is an apparatus limitation and apparatus limitations, unless they affect the process in a manipulative sense, may have little weight in process claims. *In re Tarczy-Hornoch* 158 USPQ 141, 150 (CCPA 1968).

As to claims 4 and 13, the applicant argues features that were not taught. This only because the claim 4 should have been grouped with claim 3 and claim 13 (and dependent claims 14 and 15) should have been grouped with claim 2. It was only a typo that they were not included in the previous Office Action. The limitations are read upon as explicitly pointed out in the office action. The corrections have been made below and are the only reason this rejection is not being made final.

As to claim 19, applicant argues that Burton teaches that the process does not require specialized equipment and thus teaches away from the metering containers. This is not found convincing. First, Burton is only relied upon for teaching the substrate may be a vehicle bed liner. The spraying process in Burton is inconsequential to the rejection, as Locke is the primary reference that teaches that spraying process. Secondly, Burton teaching that specialized equipment is not required is not a teaching

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that the process would not benefit from it, thus it does not teach away from the limitation. Lastly, a metering device, in order to control the amounts of material sprayed, should not be considered "specialized". Even simple manual sprayers have metering devices.

As to claim 33, these features are taught in by Locke column 11, lines 27-57.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9, 10, 21, 22, 24, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945).

Locke teaches a two-component sprayed composition that is applied to automobile parts (column 3, lines 1-10). One component comprises aliphatic isocyanates, including isophorone diisocyanate (column 9, lines 30-50). The other component comprises amines (column 4, lines 23-67). The amines may be a mixture of aliphatic primary and secondary amines (column 4, lines 23-30). The components are kept separate until mixed and also is thixotropic (column 8, lines 3-20). The composition amounts are within the applicant's claimed range (column 10, lines 28-50; column 4, lines 40-60). The reference is silent to the performance properties of the

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resulting coating. However, it is taught to include fillers in order to achieve strength and hardness characteristics (column 7, lines 43-67). It would have been obvious and within the skill of one practicing in the art, through routine experimentation, to optimize the performance properties of the resulting coating by determining the relative amounts of the components in the mixture, including fillers, and exacting amine ratios, absence evidence of unexpected results. By doing so, the life of the product is extended.

Locke teaches the limitations above, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

Claims 2 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019), as applied to claim 1 above, and further in view of Burton (US 5,925,466).

Locke teaches the limitations shown above, but is silent to the substrate being an automotive bed liner. However, Burton teaches that truck bed liners require characteristics that the composition of Locke provides (column 3, lines 1-17). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the composition taught by Locke in the bed liner taught by Burton. By

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doing so, one would have a reasonable expectation of success as Locke teaches to apply the composition to automobile parts requiring flexibility, hardness, and elasticity and Burton teaches that bed liners require such characteristics.

Claims 3, 4, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466), as applied to claim 2 above, and further in view of Wade et al. (US 5,580,945).

Locke, in view of Burton, teaches the limitations to claim 2, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

As to claims 15 and 20, Locke explicitly teaches these limitations in column 4, lines 55-67, and column 7, line 60.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the metering containers of the spray apparatus. Locke does teach to use a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Uhrhan et al. (US 4,145,512).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of light stabilizers. However, Uhrhan teaches that the addition of light stabilizers for protection against discoloration and degradation. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use light stabilizers in the composition of Locke and Wade. By doing so, one would reap the benefits of protecting the composition from discoloration and degradation.

Claims 8, 23, and, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 4 above, and further in view of Thomaides et al. (US 5,626,840).



Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control agents in the composition of Locke and Wade. By doing so, one would reap the benefits of achieving quality spray coatings.

Claims 16, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945), as applied to claims 3 and 14 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Burton and Wade, teaches the limitations to claim 3 and 14, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control agents in the composition of Locke. By doing so, one would reap the benefits of achieving quality spray coatings.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945)

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and Thomaides et al. (US 5,626,840), as applied to claim 18 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Burton, Wade, and Thomaides, teaches the limitations to claim 18, but is silent to the metering containers of the spray apparatus. Locke does teach a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

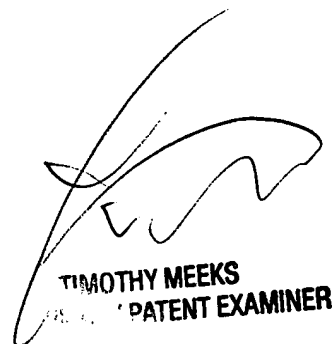
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks, can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



EBF



TIMOTHY MEEKS  
PATENT EXAMINER